DOCUMENT RESUME

ED 233 531 EC 160 054

AUTHOR Kallio, V.
TITLE Medical and Social Problems of the Disabled. A Report Based on the Technical Discussions of the Regional Committee for Europe (31st Session). EURO Reports and Studies 73.
INSTITUTION World Health Organization, Copenhagen (Denmark). Regional Office for Europe.
REPORT NO ISBN-92-890-1239-0
PUB DATE 82
NOTE 44p.
AVAILABLE FROM WHO Publications Centre USA, 49 Sheridan Ave., Albany, NY 12210.
PUB TYPE Guides - Non-Classroom Use (055)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Adults; Children; Delivery Systems; *Disabilities; Equipment; *Foreign Countries; Medical Services; Older Adults; *Prevention; *Rehabilitation; *Social Influences

ABSTRACT

The booklet reports on needs of disabled persons and discusses European rehabilitation programs in light of the emphasis on the International Year of Disabled Persons (IYDP). An introductory section reviews concepts and definitions of disability, prevention, and rehabilitation. A section on medical and social problems reviews population data and the impact of the community in relation to children, adults, and older adults. Also considered in this section are three levels of prevention, special needs for rehabilitation for the different age groups, and information on availability of aids and equipment. Specific problems related to disability and rehabilitation in the European region are considered, including varying organization of health services. Recommendations from two United Nations meetings during IYDP are summarized, including the need for increased attention to prevention and to dealing with the special needs of the elderly. (CL)

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EURO Reports and Studies
73

Medical and social problems of the disabled

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A report based on the technical discussions at the thirty-first session of the Regional Committee for Europe

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REGIONAL OFFICE FOR EUROPE
World Health Organization
COPENHAGEN
1982

EC160054

ISBN 92 890 1239 0

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PRINTED IN DENMARK

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FOREWORD

The substantial increase in health service spending in all countries of the European Region during the last 25 years has served mainly to promote curative hospital-based services. Because of the changed economic situation, most countries are now trying to halt continued growth of health expenditure which is outstripping that of national resources. This means that new priorities have to be set, among which the substantial strengthening of community-based primary health care services has a key position. This system includes promotion of health, prevention of diseases and disabilities, and rehabilitation of the disabled as important instruments in implementing the strategy of attaining health for all by the year 2000, which was extensively discussed and endorsed at the thirtieth session of the Regional Committee in 1980.

The United Nations General Assembly has been endeavouring, during the past decade, to deal with the problems of disability. In 1971 it proclaimed the Declaration on the Rights of Mentally Retarded Persons and, in 1975, the Declaration of Rights of Disabled Persons. In 1976 it proclaimed the year 1981 as the International Year of Disabled Persons, emphasizing that the international community should be made aware of the intolerable situation of the more than 450 million disabled in the world. The relevant resolution 34/154, adopted by the General Assembly in 1979, states that "the International Year of Disabled Persons should promote the realization of the right of disabled persons to participate fully in the social life and development of the societies in which they live and their enjoyment of living conditions equal to those of other citizens". In preparing the activities of

the International Year of Disabled Persons special emphasis was given to the prevention of disability, which has so far received only limited attention.

Rehabilitation and problems of preventing disability have been on the agenda of WHO both at headquarters and at regional level. In 1976 the World Health Assembly dealt with the question on the basis of document A25/1976, "Disability prevention and rehabilitation". As a follow-up to the new WHO policy adopted by the Twenty-fifth World Health Assembly, a manual for training the disabled in the community appeared in 1979 and was revised in 1980 (1). Although mainly for developing countries, parts of the manual are clearly relevant to Europe. The second important WHO contribution is the International classification of impairments, disabilities and handicaps, *published for trial purposes in 1980 (2). Finally, the problems connected with disability prevention and rehabilitation, as well as strategies for solving such problems, were discussed in a recent report of a WHO Expert Committee (3).*

At the regional level, special technical discussions had already been held, and recommendations made to governments, during the session of the Regional Committee in Malta in 1971. The new programmes on accident prevention and health care of the elderly have considerably enlarged the scope of the Regional Office in studying such problems, as with earlier programmes on child health, childhood accidents and cardiovascular diseases, as well as the extensive programme on psychiatric care. An overall "umbrella" to link social programmes in society with those of other United Nations agencies dealing with these problems has, however, been lacking. The already approved regional programme for 1984–1989 proposes a special programme on disability prevention and rehabilitation, which would contain elements now included in the various programmes. This programme could develop and utilize contacts with other agencies and national institutes.

The technical discussions held in Berlin were a contribution of the Regional Office to the International Year of Disabled Persons, which has aroused great interest among Member States as to the problems of disability. The technical discussions and resolution EUR/RC31/R13 adopted by the thirty-first session of the Regional Committee will, it is hoped, lead to an intensified programme aimed at disability prevention and

rehabilitation, and accelerate the development of solutions to these problems in the very near future.

Society is apparently becoming increasingly aware of the needs of disabled persons and seems to be willing to increase its efforts towards rehabilitation and disability prevention. This was substantiated by the recommendations of a group of scientists, doctors, health administrators and politicians, convened towards the close of the International Year of Disabled Persons by the British Department of Health and Social Security at Leeds Castle, under the chairmanship of the former Prime Minister, Lord Home of the Hirsel. The final recommendation of this group reads as follows: "... a programme of action to prevent disablement is a logical and essential part of the follow-up to the International Year of Disabled Persons. It would ensure that the next generation did not suffer from the present degree of avoidable disability, and would constitute a most appropriate, effective and long-lasting contribution to the health and happiness of mankind".

Leo A. Kaprio

WHO Regional Director for Europe

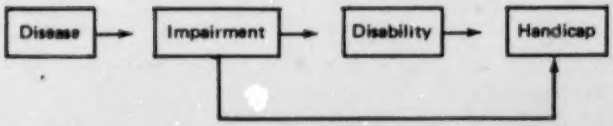
CONCEPTS AND DEFINITIONS

The concepts used in discussions on disability are often unclear and ill defined. This results in misunderstanding and difficulties in dealing with the problems of disabled persons. In accordance with resolution WHA29.35 of the Twenty-ninth World Health Assembly WHO issued, for trial purposes, a manual of classification relating to the consequences of disease (*1*). The following concepts and definitions of what constitutes a disability process are based on this publication and they are further illustrated and discussed in Annex 1 of this report.

Disability process

The concept of consequences of diseases is illustrated in Fig. 1. However, as pointed out in the *International classification of impairments, disabilities and handicaps* (*2*), the situation is more complex than the graphic representation suggests. The great value of presenting the concept in this way is that a problem-solving sequence is portrayed, intervention at the level of one element having the potential to modify succeeding elements.

Fig. 1. The conceptual framework of consequences of diseases and prevention of disability



The following definitions of impairment, disability and handicap are provided in the above-mentioned Classification.

Impairment. In the context of health experience, an impairment is any loss or abnormality of psychological, physiological, or anatomical structure or function.

Disability. In the context of health experience, a disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.

Handicap. In the context of health experience, a handicap is a disadvantage for a given individual, resulting from an impairment or a disability, that limits or prevents the fulfilment of a role that is normal (depending on age, sex, and social and cultural factors) for that individual.

The impairments and disabilities may be visible or invisible, temporary or permanent, and progressive or regressive.

The following example may illustrate the use of the above terms. A patient with hypertension (disease) is affected by a cerebral haemorrhage (impairment), which leads to right-sided hemiplegia causing walking, writing and speech difficulties (disabilities). If the patient does not recover sufficiently to resume work, or to be able to live an independent life, his disadvantage is considered a handicap. Another more general example (Table 1) illustrates the application of the concepts.

Prevention of disability

The philosophy of linking prevention of disability to rehabilitation of the disabled is based on the common experience that, once the consequences of the diseases – i.e. impairments, disabilities and handicaps – have developed, it is often impossible to restore the lost function or ability even by optimal rehabilitation measures. Prevention of disablements at any stage of the disability process, whenever possible, is thus the method of choice for minimizing the impact of disability problems in the community.

Disability prevention as defined by a WHO Expert Committee (*3*) "relates to all preventive measures aimed at:

- reducing the occurrence of impairments (first-level prevention)
- limiting or reversing disability caused by impairment (second-level prevention)
- preventing the transition of disability into handicap (third-level prevention)".

Table 1. Application of the concepts of impairment, disability and handicap

Impairment	Disability	Handicap
language	speaking	orientation
hearing	listening	
vision	seeing	
skeletal	dressing, feeding	physical independence
	walking	mobility
psychological	behaviour	social integration

The term "disability prevention" involves all measures in the three levels of prevention described below. It can be summarized as follows:

- intervention acting on the individual directly – therapies, counselling, prosthetics, medical care, training, etc.;
- intervention acting on the individual's immediate surroundings – family and community (this includes changing the attitudes and behaviour of employers and the public towards the disabled); and
- intervention with the broad aim of reducing risk factors faced by society as a whole.

Disability prevention is not limited to health sector intervention. It also includes all types of social, vocational, educational, legislative, and other intervention. The best results will be achieved only if all such forms of intervention are combined.

Rehabilitation

Many definitions of rehabilitation have been put forward, reflecting changing concepts of disability in general and the goals of rehabilitation in particular. The WHO Expert Committee (*3*) agreed on a definition which reflects the present concept. It noted that:

> Rehabilitation includes all measures aimed at reducing the impact of disabling and handicapping conditions, and at enabling the disabled and handicapped to achieve social integration.

Rehabilitation aims not only at training disabled and handicapped persons to adapt to their environment, but also at intervening in their immediate environment and in society as a whole in order to facilitate their social integration.

The disabled and handicapped themselves, their families, and the communities they live in should be involved in the planning and implementation of services related to rehabilitation.

MEDICAL AND SOCIAL PROBLEMS OF DISABLED PERSONS

Population data

The prevalence and incidence of impairments, disabilities and handicaps and their causes vary depending on age, quality of health services and prevention of disability, as well as social and economic factors. In the following, data from a number of European countries are presented with regard to the main causes of disability in three age groups – children and adolescents, adults, and the elderly. Owing to lack of a standardized system for collecting information on disability, there will be no attempt to make any comparison between countries.

Children

The number of children and adolescents in the world has been calculated to have increased by 30% from 1965 to 1980 (*4*). This is due to population growth in this age group in the developing world. In Europe the number of children and adolescents in the age group 5–18 years was 109.5 million in 1965 and the projected number for 1980 was 118.6 million, corresponding to an increase of 8.3%.

Prevalence and incidence of disablements. According to a recent Finnish study the total number of children aged 0–15 years with chronic diseases was 5.3% (T. Peltonen et al., personal communication, 1978). Congenital diseases and malformations, followed by allergic diseases and diseases of the sensory organs, were the most prevalent.

Chronic diseases often cause an impairment, which may lead to a disability and/or handicap. It can, however, be noted that while allergic conditions, notably pulmonary asthma, are rather prevalent in children, they cause permanent handicap such as incapacity to work in only about 2% or 3% of adolescents. On the other hand, congenital malformations and accidents often lead to permanent handicap in later life.

Many of the conditions producing childhood handicaps are present and detectable at birth. Success in treatment increases survival rates and, thus, the number of children with a serious disability.

Data on the frequency of some conditions producing childhood handicaps have been presented for the United Kingdom (*5*). The highest rate per 1000 related population was recorded for mental handicap (25–30 per 1000), followed by visual impairment of both eyes (29 per 1000), asthma (23 per 1000), and hearing loss in both ears (20 per 1000). Uncomplicated epilepsy was recorded in 6.4 per 1000, congenital heart defects in 5.0 per 1000, and cerebral palsy in 4.6 per 1000.

According to a report of a WHO Working Group (*6*), between 4% and 7% of live-born babies have one or more defect(s) of varying severity which can be detected at birth or during infancy; 0.5% of all newborn babies have a chromosomal defect and 0.3–0.5% have a metabolic disease of genetic origin. Some 3% of all children are known to suffer from defects of the central nervous system such as epilepsy, cerebral palsy, hydrocephalus, mental retardation and minimal brain damage.

Adults

Prevalence and incidence of disablements. A household survey in the United Kingdom showed that the main causes of physical impairment in adults were diseases of bones and motor organs, followed (far behind) by diseases of the circulatory system, central nervous system (stroke, Parkinsonism), respiratory system and sense organs (*7*).

Some data, particularly those based on the number of invalidity pensions paid out in European countries, indicate that mental disorders, cardiovascular diseases and diseases of the locomotor organs are the major causes of occupational handicap. According to the statistics provided by the Finnish Social Insurance Institution (*8*), the proportion of invalid pensioners in the working age group was 7.9% in 1979 and 7.7% in 1980. The leading reasons for granting disability pensions in 1980 were mental health problems (29.8%), followed by diseases of the musculoskeletal system (23.9%) and cardiovascular diseases (22.3%).

Table 2 shows the percentages of persons who reported complete incapacity for work in a recent Finnish population survey (Social Insurance Institution, unpublished data).

It has been reported that in Sweden, with a population of 8.3 million, about 500 000 adults between 16 and 64 years of age have impaired physical function, and about 100 000 of these have difficulties in coping with daily living (*9*).

Between 135 000 and 140 000 persons suffer occupational injuries annually. About 3000 of these become permanently disabled and severe handicap arises in about 200 cases (*9*).

Table 2. Percentages of persons reporting complete incapacity for work

	Age group (years)			
	30–39	40–49	50–59	60–64
Men	2.1	7.4	21.2	37.8
Women	1.8	3.2	11.1	15.7

About 16 000 persons are hospitalized annually for injuries resulting from traffic accidents. About 50% of these patients still suffer from some form of after-effect 5 years later (*9*).

The elderly

Changes in the age structure by the year 2000. According to population projections provided by the United Nations, the proportion of persons aged 60 years and over will increase in most European countries during the next two decades. It has been estimated that by the year 2000 the average proporton of the total population in this age group will be 18.2% – ranging between 7.8% (Turkey) and 22.6% (Federal Republic of Germany). The corresponding figure for males is 16.1%, ranging from 7.4% (Turkey) to 20.6% (Luxembourg). The average for women is projected as 20.4%, ranging from 8.2% (Turkey) to 25.6% (Federal Republic of Germany). In some countries the number of persons over 60 years of age will double (Albania, Iceland, Turkey), while in some others no increase has been projected (Austria, Federal Republic of Germany, Sweden). The highest rates of increase are expected in the age group 85–90 years.

Prevalence and incidence of disablements. According to figures calculated from the findings of a total household survey in the United Kingdom (*7*), the point prevalence of selected disabling conditions in a population living at home was as follows (per 10 000 population):

stroke	25
blindness	20
partial sight	40
deafness	5
hardness of hearing	70
multiple handicap (75 or more years of age)	200

Most patients with stroke and those partially sighted or hard of hearing are elderly.

According to the same study, almost two thirds of the estimated 234 with severe physical and sensory handicaps per 10000 population are over 65 years of age. The number of people with disablements increased rapidly with age in later life, and almost a third of all people aged 75 years or more living at home had some impairment severe enough to be reported. Because of this association with age, and women's longer expectation of life, it is not surprising that almost two thirds of the handicapped are women, many of whom are widowed and living alone.

A recent survey on a representative Finnish population sample (Social Insurance Institution, unpublished data) indicated that about one third of men and one fifth of women above the age of 65 considered themselves completely incapacitated for any physical work.

Climbing several flights of stairs was considered very difficult by about a quarter of the men and about a third of the women. Walking 500 metres was reported to be at least somewhat difficult by about two fifths of the men and even more so by the women. Heavy cleaning was considered very difficult or impossible by about two fifths of the men and about half the women. Very poor memory and severe difficulties in concentration were considered significant causes of handicap by more than one in ten of the elderly who were interviewed.

The incidence of acute myocardial infarction in men aged 65–69 years was 24 per 1000 persons per year and increased with age, the highest incidence being 62 per 1000 persons per year in men aged 80–84 years (*10*). The corresponding figure for women aged 60–64 years was 12, the peak of 28 being observed in the age group 85–89 years. One-year mortality was clearly related to age. One-year cumulative mortality, including those who died before reaching hospital, was high – 77% for men and 76% for women. These figures may be considerably higher than in other European countries.

The survivors often develop disability and a mobility handicap due to chest pain or dyspnoea but many of the affected are, nevertheless, able to live a relatively independent life.

The estimated annual incidence rate of stroke per 1000 persons in the population has been reported to be about 9 in the age group 65–74 years, 20 in the age group 75–84, and 40 among those 85 or over (*11*). The average survival time is 3–4 years. As the stroke patient often has associated impairments, such as sensory disorders, heart failure and osteoarthrosis, the handicap is often considerable unless proper rehabilitation measures are undertaken.

Being disabled in the community

The problems of being disabled relate both to the type and extent of the functional limitations due to the disablement and to the social attitudes and organization of the society.

The functional limitations relate essentially to locomotor, sensory and mental disabilities, which may often be complicated by other disablements resulting in severe multiple-cause disability and handicap.

Often, however, the problems experienced by the disabled are due even more to deep-rooted negative attitudes in society. These may often exclude the disabled from full participation in society, depriving them of the rights of the able-bodied. Although attitudes towards the disabled/handicapped have become more positive during recent years, there are still prejudices concerning school attendance, participation in working life, marriage, leisure time activities, travelling, etc. Disabled persons are seldom given the opportunity to participate fully in decision-making concerning their role in society.

If the disabled person concerned is able to compensate he may often be able to overcome or at least reduce the impact of the disabling conditions. Whether or not this is possible will thus depend on many factors, such as (*6*):

- the existence and acceptability of alternative behaviour patterns
- the disabled person's own skills, which are necessary to allow him to develop alternative behaviour patterns
- the disabled person's own psychological flexibility
- the flexibility and compassion of the community in which the disabled person lives.

Some of the problems of being disabled are age-related and thus a few of the specific problems of children and the elderly will now be discussed.

Children

Some of the problems are directly related to limitations preventing the child from enjoying normal contacts with other children and other social and educational activities typical for his or her age. The parents' attitudes towards the disabled child are among the most important factors determining the future adjustment of the child in society. Such attitudes depend on many factors, such as the parents' personalities, their previous experiences with disability, and the severity of the disability. Inadequate and inappropriate attitudes may result in over-protection of the child and cause emotional problems such as dependence and immaturity. These consequences tend to become worse as time passes unless appropriate measures are taken to reduce them.

Formerly it often happened that the disabled child was not allowed or could not manage to go to school, which resulted in many untoward reactions and an occupational handicap in later life. Childhood is dominated by school life, and therefore going to school, if possible to a normal one, is to be considered one of the basic rights of disabled children.

The elderly

The elderly often accept many of their disabilities as a natural concomitant of aging. Feelings of insecurity and depression are, however, common and may often be due to communication and locomotor disability, leading to social isolation. Old age, and even more so a disability or handicap in the elderly, is often accompanied by social stress due to changes in income and status, problems in the relationship between the elderly and their families, and architectural/environmental barriers. Stress may aggravate the consequences of impairments and disabilities, particularly mental health problems.

Prevention of disability

First-level prevention

First-level prevention should be of primary concern in all age groups. It is the most important strategy in reducing the impact of disability. While all public health measures aimed at promoting health in general are important to this end, there is a need to develop and apply some specific actions in the future, such as:

- preventing accidents at home, on the roads and at work
- reducing environmental hazards
- reducing psychosocial stress and other risks to mental health
- preventing chronic diseases such as coronary heart disease, cerebrovascular disease and hypertension
- appropriate treatment of chronic diseases to prevent or reduce the occurrence of impairments.

As chronic diseases take many decades to develop into clinical conditions which eventually lead to impairments, disabilities and handicaps, prevention would have to start in early childhood through the promotion of healthy lifestyles.

Children. In the European Region, the most important causes of disability encountered in the developing countries, such as malnutrition, communicable diseases and poor perinatal care, seldom result in permanent disability. There are, however, other factors which need due consideration with regard to the prevention of childhood disability. The following measures to this end need careful attention:

- genetic counselling
- rubella immunization of non-immune teenage girls

- strengthening of the family, community protection and stimulation of children
- prevention of accidents in the home, in the school and in traffic, including educational measures
- prevention of drug and alcohol abuse
- effective treatment of acute infections to prevent chronic sequelae
- immunization.

Adults. In addition to preventing occupational hazards there is a need to develop and standardize methods of measuring all types of environmental factor and their effects on the wellbeing of workers. All working places should be covered by adequate and comprehensive occupational health services. This question was recently discussed by a WHO Working Group (*12*).

The elderly. While old age is not preventable, measures should be developed to prevent or reduce the problems of old age, whether social or medical.

Emphasis should be placed on educating everybody in how best to meet the problems that occur with increasing age. It is necessary to ensure that the approach to the later stages of life is positive and that the greatest possible degree of independence is maintained (*13*).

Mental health problems which, as pointed out, are often due to social stress accompanying old age can often be overcome by appropriate measures to diminish social isolation and other social disadvantages connected with old age. Special day centres providing the aged with various hobbies, courses, physical therapy, literature, etc., have proved useful in this respect. One such facility is the Sonja Henie-Onstad centre in Norway, which consists of accommodation for the aged, with services provided both to the residents and to the aged living nearby.

Accident prevention also needs due attention in the elderly, who often suffer dizzy spells and loss of physical balance, which may lead to hip fracture and other disabling/handicapping injuries.

Second-level prevention

It is important to detect impairments as early as possible in order to prevent them from becoming disabilities which interfere with the performance of normal activities. Methods for the early detection of handicap in children have been extensively discussed in a recent report of a WHO Working Group (*6*). Many of the principles set out also apply to adults and the elderly.

Detection programmes should be restricted to detecting those conditions which are identifiable and for which appropriate management is available, and they should be as simple and flexible as possible. No detection programme

should be established without considering the psychological implications. An active approach by the primary health care services in developing appropriate detection methods involving parents and other family members should be encouraged.

Third-level prevention

Third-level prevention aims at preventing disabilities from developing into handicap, i.e. consequences which limit or prevent the fulfilment of the individual's normal role in society. The measures required usually correspond to rehabilitation of the disabled. It is, however, important to stress the preventive component of such action because it places some emphasis on measures, such as barrier-free design of new public buildings and homes, which will prevent many disabled with locomotor problems from becoming mobility handicapped. Special attention should also be paid to the abolition of existing architectural barriers. Appropriate legislation may be required to encourage the application of barrier-free design.

Changing the negative attitudes of society towards the disabled is another way of preventing or reducing handicap.

Prevention of institutionalization is an important goal which should be aimed at by appropriate measures such as those described in a recent WHO publication (*14*).

Rehabilitation of the disabled

Rehabilitation is still often perceived by the public, and even by the medical profession, as a sophisticated and complex process aimed at helping the severely disabled to overcome functional limitations due to various impairments such as blindness or locomotor deficiencies. It is time to widen the scope of rehabilitation to include those with non-visible disabilities, such as mental retardation, other mental health problems, chronic diseases and chronic pain.

As disability is a multifactorial problem, due attention should be paid to all contributing factors, whether medical, social, psychological, occupational or economic. Many of these factors can be dealt with by experienced rehabilitation workers in the community and, as time passes, often by family members or relatives of the disabled person.

It is important to realize that rehabilitation is not a unidirectional process during which the patient is just an object, but is an active process involving the disabled and the therapist or the rehabilitation team.

Rehabilitation is not only a process of individual adaptation to environment, but one of changing the latter to meet the needs of people with certain restricted abilities. Services aimed at rehabilitating individuals may contribute to social changes which will make the lives of all disabled people easier.

Special needs in various age groups

Children. Rehabilitation measures to minimize the consequences of disability or handicap in children are particularly important and should be properly timed according to the needs of the disabled. In some cases it is often possible to correct the underlying disease or defect if the diagnosis is made early enough. Apart from exact medical diagnosis and functional evaluation, due consideration has to be given to the assessment of social factors such as family stability and environmental conditions. The anxiety of parents, which frequently follows the detection of disability in a child, is often reflected in the child's behaviour and this must be taken into account when planning rehabilitation. The need for appropriate education and its integration into the normal educational system of the community, whenever possible, cannot be too strongly emphasized.

As regards the rehabilitation of adolescents with chronic impairments, disabilities and handicaps, enough time should be devoted to proper job selection and other vocational measures. If these measures are applied early enough and in a proper way, even a severely disabled adolescent is often capable of independent and meaningful employment and will thus become properly integrated in the community. On the other hand, in the present situation in some European countries with large unemployment rates among young people, the disabled adolescent may face serious problems in finding suitable work. It should, however, be emphasized that, when dealing with the unemployment problems among youth in general, the particular problem of disabled adolescents should not be forgotten.

Adults. The ultimate goal of rehabilitation is resettlement in the community. Participation in working life can be considered as one of the essential goals of a person of employable age. Vocational rehabilitation and job placement should be aimed at as a primary target. It must, however, be clearly stated that work as such should not be overrated or overemphasized as an endpoint of successful rehabilitation. There is a need to stress quality of life as an important goal for rehabilitation when the disabled cannot return to work.

A careful assessment performed by an experienced team consisting of a physician, a social worker and a psychologist, supported by a work evaluation unit, may often be necessary to evaluate realistically the patient's qualifications for the labour market. The aim should be to place the disabled in a normal working environment if possible. Long-term experience with sheltered work to prepare the disabled to enter an ordinary place of work has not been satisfactory. Further efforts in this field are necessary.

In some European countries there have been positive experiences with cooperatives for the disabled which, in addition to the disabled, employ a certain number of able-bodied workers to perform jobs not suitable for the disabled.

The elderly. While rehabilitation has now made great progress as regards children and people of employable age, the great challenge of rehabilitating the elderly has only recently been taken up. One of the main reasons for the slow development in this area might be an unduly pessimistic view of the value of treatment by old people themselves, their relatives, friends, neighbours and, regrettably, also health personnel. It has, however, been shown that the proportion of geriatric patients who benefit from treatment and rehabilitation as assessed 3 months after discharge is almost as great as in younger patients treated in general hospitals (*15*). It is a common experience that at least one third of the geriatric hospital patients can be rehabilitated to such a level of independence that they will be able to live at home, or at least in a home for the aged (*16*).

The major areas of concern are self-care, psychological adjustment, income, housing, transport and recreation. A functional assessment is often necessary to assess the needs and the capacities of the elderly disabled/handicapped. In this assessment attention should be paid to accurate medical diagnosis, activities of daily life, need for physical activation and, in particular, social and environmental factors.

Institutional care versus community approach

Until recently there was an overemphasis on the institutional care of the disabled. While institutions will continue to be required in the future for the most severely disabled, their inappropriate use endangers successful social integration by isolating the disabled from their natural environment, the home. If treatment in an institution or hospital is indicated, it should be as short as possible in order to prevent the development of dependence.

Day hospitals for the elderly play an important role in many European countries. They aim at increasing the independence of the aged in daily life and at helping them to live in their own homes. The main activities usually included in the programme of day hospitals are:

- rehabilitation
- maintenance therapy
- social counselling
- medical follow-up and care.

In Great Britain there were 12 geriatric day hospitals in 1960, whereas in 1979 they numbered 300.

As an example of rehabilitation in the patients' homes, the Birmingham experience can be referred to (*17*). Local general practitioners were given access to a domiciliary physiotherapy service for patients aged 65 years and over, living at home with potential family support, who were unable to attend hospital. This scheme produced more contented patients and

more satisfied therapists, the costs of both individual treatments and treatment courses being *very much less* than that of hospital treatment. It was recommended that every health district should have access to such a service.

An example of the use of voluntary workers in the rehabilitation of stroke patients is the schemes of the Chest, Heart and Stroke Association in the United Kingdom (*17*). The patient with speech problems is put in touch with a group of 4–5 people, each of whom undertakes to visit the patient in his own home for 1 hour once a week. Each voluntary worker engages the patient in conversation related to a field of interest, whether gardening, cookery, world affairs or the football pools.

This scheme derives from the observation that ordinary people, perhaps because of their very ordinariness, can help dysphasic patients to regain social competence and to use residual language more effectively. Similar voluntary schemes have been tried with other chronic conditions and deserve due consideration in the future.

In most European countries, there is a lack of rehabilitation personnel in primary health care services, leading to unnecessary referrals to special institutions. As the number of rehabilitation specialists cannot be increased to cover all the needs foreseen in community-based rehabilitation, education and training of existing primary health care workers, such as community nurses, to participate in rehabilitation activities should be considered. Nursing already includes, by definition, many activities which are currently the responsibility of highly specialized therapists. The possible role of nurses as primary rehabilitation workers in the community thus merits careful consideration.

As regards guidance on the community-based approach to rehabilitation, special mention should be made of the WHO manual *Training the disabled in the community* (*1*). This experimental manual contains training programmes for people with various kinds of disabling and handicapping conditions and is designed to be used mainly in developing countries. However, the basic concept that much progress can be made by proper education of the disabled and their families in terms of simple rehabilitation measures and techniques merits consideration in all countries. Community-based rehabilitation should be further developed in the manner most appropriate to each country and community.

Economic aspects

As pointed out earlier, rehabilitation is often considered a sophisticated undertaking involving high costs for the benefit of only a few disabled. It should, however, be clearly stated that, whether or not rehabilitation services are provided, disability incurs costs to society of both an economic and a social nature and that these costs can be reduced by effective rehabilitation and support programmes (*18*).

Prevention of disability at all levels, and early detection and treatment of disablements, are important not only from a humanitarian point of view but also in terms of reducing the cost of care. This applies particularly to young people with impending chronic conditions which are often compatible with long-term survival.

Emphasizing the community approach over institutional care, and use of primary health care services, are important strategies in reducing the costs of disability, particularly with regard to the increasing number of elderly disabled.

Cost-benefit analysis of job-oriented rehabilitation has been attempted by many investigators. According to some recent studies it seems to be difficult to estimate the cost-benefit ratio in simple economic terms. The domestic environment rather than the industrial one may be the area where rehabilitation is most productive (*19*).

This does not imply that vocational rehabilitation should not be attempted when indicated. It merely suggests that, while the resources available for rehabilitation are limited, due consideration should be given to the allocation of resources in the way which benefits as many disabled persons as possible.

Aids, appliances and equipment

In order to provide the disabled with as much independence as possible, use should be made of various aids and appliances for personal care, mobility, housework, communication and leisure activities (*20*).

A large number of technical devices, ranging from simple walking aids to sophisticated and complex equipment, is now available. It should be stressed, however, that careful assessment of the individual and his needs should be made prior to the issue of any item. The individual's personality, motivation and degree of intelligence may influence the recommendations. The patient should be taught the optimal method of using the devices, if possible in the home.

If equipment and aids can be unobtrusive and commonplace, so much the better; the disabled and their relatives will probably find them easier to live with and one of our aims should be to make life as normal as possible.

It should be pointed out that the most basic rehabilitation is self-rehabilitation, which should be encouraged as much as possible. If the aids and the appliances help the patients to preserve their sense of dignity and personal worth, they will often be able to resist the debilitating effects of overprotection and isolation.

The availability of various aids and appliances for the disabled varies in different countries. Rehabilitation technology greatly facilitates the social integration of the disabled and thus reduces the consequences of disability and handicap, both social and economic. A smooth system should therefore

be planned for each country in order to make at least the personal aids, and perhaps some appliances, available to those who need them, preferably through the primary health care services.

The severely handicapped

The main causes of severe disability/handicap include congenital disablements such as cerebral palsy, muscular dystrophy and mental retardation, and acquired disablements such as limb amputation, heart disease, hemiplegia, mental illness, multiple sclerosis and spinal cord conditions. Severe handicaps are often due to multiple disabilities.

According to health statistics produced by the US Department of Health and Human Services, the number of persons in the United States using a wheelchair was about 3 per 1000 population in 1977. Table 3 shows the distribution of those using a wheelchair, divided into various age groups.

Table 3. Number of persons using a wheelchair in the United States, by age group

Age (years)	Number of persons using a wheelchair per 1000 population
Under 45	1.1
under 15	0.9
15-44	1.2
45-64	3.4
65 and over	15.0
65-74	10.6
75 and over	22.9

These data are based on household interviews of the severely disabled but non-institutionalized population. Based on the available evidence, these figures correspond to those in many European countries.

Priorities for research

The present concept of integrating disability prevention and rehabilitation in primary health care includes giving preference to the community approach over institutional care. This approach offers a rich field for health services research. As proposed by a WHO Expert Committee (*3*), action-oriented research and studies should be given high priority. The place of volunteers and self-help in rehabilitation needs careful evaluation, as does the role of family members in the detection of disablements and in rehabilitation.

Public attitudes towards disabled persons and disability in general, and measures to influence them favourably, warrant sociological and behavioural research.

SPECIFIC PROBLEMS RELATED TO DISABILITY AND REHABILITATION IN THE EUROPEAN REGION

The general problems connected with disability and rehabilitation are the same all over the world. In Europe, a great variety of problems arise from the number of different languages, different cultures and different economic problems. There are countries which are highly developed and have organized services for the handicapped in an exemplary way, whereas in other countries the rehabilitation services have just begun to be developed and the situation is to a certain extent comparable to that in developing countries.

The delivery of health services including rehabilitation has also been organized in different ways. In some countries it is based on socialized medicine organized by the state, while in other countries private practice is still the prevailing system.

Another important difference is the rate of unemployment, which in some countries is practically nonexistent while in others it is relatively high.

These differences have influenced and will, even in the future, substantially influence the development of rehabilitation services in each individual country. They must thus be borne in mind while setting the basic goals for development of rehabilitation in Europe.

One of the basic problems is how to develop rehabilitation services and solve the problems arising from various disabilities and handicaps in industrialized and highly developed countries. The trends shown by these countries will be considered as guidelines by the less developed countries and thus warrant careful consideration.

Another problem is that of raising the rehabilitation services in less developed European countries to the level of those in highly developed

countries in Europe. Assistance to the developing countries outside Europe in building up their rehabilitation services should also be considered.

Medical services are usually readily available in European countries, but not as regards rehabilitation. Ways are needed to stimulate the interest of the medical profession in rehabilitation medicine and in rehabilitation in general in order to make progress possible.

Rehabilitation medicine programmes vary greatly in different countries. Discussions concerning the content of this branch of medicine and the standardization of education should be initiated. There is also a lack of undergraduate and postgraduate education and training in rehabilitation. It should be strongly emphasized that the education and training of medical students in rehabilitation requires more attention. It should not only be oriented in the manner of traditional medicine but due consideration should be given to the modern concepts of comprehensive rehabilitation. The same approach should be used with regard to the education of paramedical personnel.

The reorientation in education would provide important tools for the development of community-based rehabilitation and activate the team approach so important to comprehensive rehabilitation.

There will never be wholly adequate services for the disabled. This is, to a certain extent, due to the lack of coordination between different bodies and agencies dealing with rehabilitation problems in general and more specifically with the problems of handicapped people. Much could be gained by proper coordination and organization of the efforts to improve services for the disabled and the handicapped.

Impairments and disabilities in Europe are somewhat different to those in developing countries. The problems of communicable diseases leading to permanent impairments such as blindness have been practically solved in Europe. On the other hand, the rehabilitation problems connected with the increasing elderly population are more prevalent in Europe than in developing countries. The elderly often present with disabilities requiring rehabilitation measures in order to keep them functionally active and well integrated in society.

The problem of chronic pain, particularly involving the locomotor system, has been neglected. According to some studies, the majority of the adult population suffer from chronic pain which affects their working capacity. This causes considerable economic losses in all countries.

The customary view of a handicap as a stable condition has to be altered. Almost all the handicapped are compensated for a certain period of time, but the handicap will become worse, for instance with aging. A recent study on persons disabled by poliomyelitis has shown a striking worsening in working ability after the age of 40. Preventing decompensation of a specific handicap to slow deterioration with aging can be considered as a new approach to be developed in practice.

SALIENT POINTS OF TWO UNITED NATIONS MEETINGS IN EUROPE DURING THE INTERNATIONAL YEAR OF DISABLED PERSONS

Symposium of the United Nations Economic Commission for Europe

The United Nations Economic Commission for Europe organized a European meeting in Finland, with representatives also from Canada and the United States. About 50% of the participants representing organizations for the handicapped were disabled themselves. The discussion basically concentrated on experiences gathered during the International Year of Disabled Persons and on long-term remedies. The integration of the handicapped in society was among the main problems discussed. Three important points were mentioned in particular:

- the influence of the organization, administration and structure of services on the integration of the handicapped
- the possibility of the European Region assisting the developing countries
- various aspects of disability prevention and social rehabilitation.

The general conclusion of the meeting was that a policy is needed in all countries to promote the integration of the handicapped. Services should be made available to all. Rehabilitation should be organized so that the services are available where the handicapped person lives. With regard to assistance for developing countries, it was emphasized that local possibilities for rehabilitation should be developed and the political and economic structure of the country should be taken into consideration. Integration of the handicapped should include consideration of architectural barriers in places of work as well as in the home. Possibilities should be made available for the handicapped to develop personality and individual skills.

An organizational body should be created to be responsible for the education of the general population, in order to avoid segregation of the handicapped.

The general opinion on the success of the International Year of Disabled Persons was fairly positive. Local initiatives were developed in all the countries involved and it was felt that the work should be continued on a long-term basis.

Third Meeting of the United Nations Advisory Committee on the International Year of Disabled Persons

This meeting, held in Vienna in August 1981, established a Draft of the Long-Term World Action Programme concerning disabled persons to be

discussed by member countries and special agencies of United Nations and nongovernmental organizations. This programme consists basically of three main elements – rehabilitation, prevention and equalization of opportunity. The definition of rehabilitation as adopted in the programme reads as follows: "Rehabilitation is a time-limited process aimed at enabling an impaired person to reach an optimum physical, mental and/or social functional level, thus providing her/him with the tools to change her/his own life. It can involve measures intended to compensate the loss of function or functional limitations, for example by technical aids, as well as measures intended to facilitate social adjustment or re-adjustment".

Rehabilitation usually includes a correlated provision of the following types of service:

- early detection and diagnosis
- medical care and treatment
- therapeutic measures, such as those provided by therapists, psychologists and others
- training in self-care activities including communication, mobility and daily skills with the special provisions needed for impaired hearing, the visually impaired and the mentally retarded
- provision of technical aids and other devices
- specialized education services
- vocational assessment, training and placement
- social and other types of counselling and assistance
- follow-up.

Rehabilitation should be integrated within the existing structure of providing health and other required services. It should be provided in a natural environment supported by community-based services and not in large institutions. Specialized institutions, where they are necessary, should be organized in such a way as to ensure an early and lasting integration of the disabled person into society.

The equalization of opportunities was defined as "the general system of society such as the physical environment, housing and transportation, social and health services, educational and work opportunities, cultural and social life including sports and recreational facilities made accessible to all. This involves the removal of barriers to the full participation of disabled persons in all these areas thus enabling them to reach a quality of life equal to that of others".

DISCUSSION AND COMMENTS BY NATIONAL REPRESENTATIVES

The basic philosophy of linking rehabilitation with disability prevention was widely promoted by the representatives of participating countries. The broader definition of disability, including non-visible handicaps, was welcomed. It widens the scope of rehabilitation considerably, but at the same time brings about new problems.

Prevention of disability needs greater attention. It is a most important strategy and it should start as early as possible. Stress was considered to be an important cause of impairments and disabilities in western countries. Education might help to cope with stress as, according to some studies, the uneducated suffer a higher prevalence of stress. As sports constitute a major element of leisure-time activities in many countries, prevention of sports injuries should be given proper consideration.

The elderly present a great problem and will do so even more in the future. Loneliness in old age is one of the major problems which may be a reason for psychological impairment leading to behavioural disability and social integration handicap. The community and families must be re-educated to take care of the elderly in order to prevent loneliness and all its sequelae. In countries in which the extended family still exists, this problem is almost unknown and we might learn something from them. One of the most important tasks in the near future will be an attempt to change the attitudes of all generations to the elderly. There are false estimates among the general public on the number of the elderly. The number of elderly requiring institutionalized care is overestimated, which creates some negative attitudes. A long-term effort is required to achieve effective community action.

When considering many problems connected with aging we should listen to the elderly themselves and try to find out what they think should be done. Because we shall never have adequate services we should find out what the elderly could do for the elderly. Some solutions might be found on a community basis.

As regards rehabilitation, the importance of the primary health care approach was emphasized by many speakers. Rehabilitation can never be compulsory, but it should be voluntarily accepted. Special institutions, if necessary, should be located near the homes of the disabled, particularly if they are children. Institutionalized care should not exceed the requisite time. Social integration will be favoured by this approach. Institutionalized care should be undertaken in cooperation with relatives and families. Social and occupational integration should take place in parallel with medical improvement.

Some countries undertake scientific studies of the results of rehabilitation in patients with cardiovascular diseases. About 70% of survivors

after acute myocardial infarction are fully integrated into the work process, in contrast to some 30% 7 or 8 years ago.

Occupational therapy and special forms of easy work with full wages and sheltered workshops are examples of attempts to integrate the disabled with severe psychological problems and physical impairments. The place of work should, whenever possible, be located in the home community. Theories on how to develop rehabilitation services must be tested against practical conditions in order to see whether we can meet the needs of individual disabled and handicapped people. The International Year of Disabled Persons has been important in emphasizing that the rights of the disabled must be respected.

Rehabilitation as a concerted and well planned action came into existence in several countries only after the Second World War. It was then recognized as an integral part of treatment, an approach which later was often neglected. It should also be emphasized that not only the affected organ should be treated, but the sick person as a whole. The patient has various fears concerning continuation of his previous work, hobbies, relation to family members, social standing, independence, etc. He thus needs, apart from medical care, help in solving a variety of social and personality problems. The goal of comprehensive rehabilitation is to provide the patient with assistance in these matters. Teamwork is often important in order to integrate rehabilitation measures within the existing services. Training of the staff in these matters is of the utmost importance. The final outcome of rehabilitation does not depend on the degree of morphological impairment and the level of compensation but on the personality of the patient.

In some countries, there are special bodies to determine the degree of and reason for the handicap and to indicate what kind of work is still accessible to the person concerned. The same body tries to help in the rehabilitation and integration of the handicapped person in his environment.

As to the follow-up of the technical discussions, three questions were raised.

- What needs to be done by health leadership in Europe about disability prevention and rehabilitation?

- As the questions related to impairments, disabilities and handicaps are increasing in all countries, we need to do more than we have done until now. Different organizations and agencies are involved in the work. What should the Regional Office and the Regional Committee do?

- What are the resources of the Regional Office for achieving results within the European Region? Is what we have now sufficient and/or, if we recognize the challenge, would we like to do more? Is

this possible and realistic and what do we need in order to reach some practical conclusions from the discussion?

These questions were at least partly answered during the discussion on a draft resolution on medical and social problems of disabled persons. Resolution EUR/RC31/R13 (Annex 2) was adopted by the Regional Committee.

SUMMARY

Prevention of disability and rehabilitation of the disabled are important instruments in putting into effect the strategy of attaining health for all by the year 2000. The International Year of Disabled Persons gave an excellent opportunity for promoting this strategy.

New concepts of disability are set out in the publication *International classification of impairments, disabilities, and handicaps*, which should be widely referred to and used.

According to population surveys and other available data, the number of people with various disablements is alarmingly high in many countries of the European Region, amounting to at least 10% of the population.

Medical and social problems of disabled persons vary greatly according to the age group concerned. In children they are most often due to congenital disorders and malformations and some chronic diseases. The handicap experienced by children can often be classified as a social integration handicap. The problems of the middle-aged are usually connected with accidents and diseases of the locomotor and cardiovascular systems, which cause occupational handicap but nevertheless often allow the victim to live a relatively independent life. The problems of the elderly are often due to multiple handicaps, including physical dependence and mobility handicap due to chronic diseases.

Medical and social problems also vary greatly from country to country in Europe, owing to different languages, different cultures and different economic problems.

In some countries rehabilitation services are highly developed, but in others they have just been started and the situation is thus, to a certain extent, comparable to that in developing countries.

The severely disabled have special needs which should be carefully assessed and appropriately met by the rehabilitation services.

Social problems are often the major determinants of handicap resulting from an impairment or a disability.

Because architectural barriers still prevent many disabled people from becoming socially integrated, more attention should be given to the encouragement of barrier-free design, including appropriate legislative measures.

The attitudes of the public are slowly changing in favour of accepting people with various disabilities and handicaps, although much still remains to be done, particularly with regard to non-visible handicaps such as mental health problems.

Impairments, disabilities and handicaps are often preventable. Prevention of disability, including all types of intervention within and outside the health sector which contribute to reducing disablements, should thus be of primary concern to all countries.

The customary view of handicap as a stable condition has to be altered. Prevention of decompensation of a specific handicap in order to slow down deterioration with aging can be considered as a new view to be developed.

There is a lack of ambition among doctors to specialize in fields related to chronic diseases. The medical profession seems still to be preoccupied with diseases which "kill rather than cripple". Disability problems should be properly incorporated in the curricula of medical students, and medical and other health personnel.

While legislation in most European countries includes provisions for disabled persons, more attention should be paid to promoting legislation on preventing disability.

Rehabilitation should, whenever possible, be instituted using the primary health care approach, and provide total coverage of all populations. Services should be community-based with appropriate systems for supervision and referral and using the multidisciplinary approach so important in comprehensive rehabilitation.

The administration and organization of disability prevention and rehabilitation should be encouraged, particularly health services research.

All measures should be taken to achieve the full participation of the disabled in community activities on the basis of equity. A policy is needed in all countries to promote the integration of the handicapped in society. Equalization of opportunities, which involves removal of barriers to the full participation of disabled persons, should enable them to achieve a quality of life equal to that of others.

The International Year of Disabled Persons has been important in emphasizing that the rights of disabled persons must be respected.

As to the follow-up to the technical discussions, questions were raised concerning the role of health leadership in Europe in general and of WHO in particular, as well as concerning resources of the Organization to meet the challenges. These questions were partly answered in resolution EUR/RC31/R13 adopted by the Regional Committee.

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Annex 1

A GLOSSARY RELATING TO DISEASE AND ITS CONSEQUENCES[a]

Nomenclature relating to disability and other consequences of disease has been confused. The difficulties have stemmed from lack of a coherent scheme or conceptual framework and the fact that those concerned with disablement have not shared common unambiguous definitions for relevant terms.

Two WHO initiatives have helped to remedy this situation. The first approved in principle a conceptual framework that has now been published in the *International classification of impairments, disabilities and handicaps* (ICIDH) (*1*); this scheme has been reported elsewhere in abbreviated form (*2,3*). The second secured agreement on usage for the most important terms between a number of international agencies, such as the International Labour Organisation and the International Social Security Association; the definitions of these recommended terms, taken from the ICIDH, are given here.

The glossary presented in this paper was originally prepared as an appendix to the ICIDH.

Recommended terms

These have been derived from the ICIDH.

Disability

Any restriction or lack (resulting from an *impairment*) of ability to perform an activity in the manner or within the range considered normal for a human being.

Note: (i) a disability may be temporary or permanent and reversible or irreversible, and may be described as progressive or regressive; (ii) a disability may or may not constitute a *handicap*.

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[a] Adapted from Wood, P.H.N. *International rehabilitation medicine*, 2: 86–92 (1980) by kind permission of EULAR Publishers, Basle.

Disablement (non-official definition)

A collective descriptor referring to any experience identified variously by the terms *impairment*, *disability*, and *handicap*.

[Strictly, the term *disablement* implies the state of being disabled or having a *disability* (thus distinguishing between a condition and the state of a person with that condition); although the similarity between these two terms may be potentially confusing, it has not so far been possible to devise an alternative].

Handicap

A disadvantage for an individual, resulting from an *impairment* or a *disability*, that limits or prevents the fulfilment of a role that is normal (depending on age, sex, and social and cultural factors) for that individual.

Note: the difference in meaning of *impairment*, *disability*, and *handicap* may be illustrated by the following example. The loss of the top joint of the left middle finger is an *impairment*. It could restrict one or more normal activities, thus resulting in a *disability*. For most people this would not be a disadvantage, but it would confer a disadvantage on a concert violinist, for whom it would constitute a *handicap*.

[*Handicap* represents socialization of an *impairment* or *disability*, and as such it reflects the consequences for the individual – cultural, social, economic, and environmental – that stem from the presence of *impairment* and *disability; handicap* is characterized by a discordance between the individual's performance or status and the expectations of the individual himself or of the particular group of which he is a member].

(Health) Impairment

Any loss or abnormality of psychological, physiological, or anatomical structure or function.

Note: (i) this term is more inclusive than *disorder* in that it covers losses – e.g., the loss of a leg is an *impairment*, but not a *disorder;* (ii) an *impairment* may be either temporary or permanent.

Preferred terms

These terms have been derived from the first draft of a WHO glossary, but it must be understood that this in no way implies that the terms and definitions have been approved by WHO. The same conventions have been followed as in the presentation of recommended terms.

Disability prevention

Preventive medicine with the specific aim of preventing the occurrence of ***disabilities*** and of ***handicaps***, and of reducing those that are already present.

Note: the levels at which disability prevention is implemented are referred to as:

first-level all measures designed to prevent the initial occurrence of a (health) ***impairment;***

second-level all measures designed to prevent the occurrence of ***disability*** once a (health) ***impairment*** is apparent or probable;

third-level all measures designed to reduce ***disability*** that is already present and to prevent its being a ***handicap***, or to reduce its handicapping effect.

Disease

Any pathological process associated with a characteristic identifiable set of symptoms.

Note: compare ***disorder*** and (health) ***impairment*** [in connoting a condition of the body, or of some part or organ of the body, the term ***disease*** is abstract in meaning, in contrast to the more concrete terms ***manifestation*** and ***impairment***, which reflect the outcome of interaction between disease and the individual's body].

Disorder

Any morbid process or functional abnormality.

Note: this term is more inclusive than ***disease*** but less inclusive than (health) ***impairment***.

Psychosocial factor (in health)

A general term for any of a variety of conditions affecting the ***state of health*** or the provision and utilization of health care, and stemming from individual or collective behaviour, perceptions, knowledge, and attitudes.

Rehabilitation

The combined and coordinated use of medical, social, educational, and vocational measures for training or retraining the individual to the highest possible level of functional ability.

Note: (i) there is a considerable degree of overlap between ***rehabilitation*** and ***third-level*** (disability) ***prevention;*** (ii) ***rehabilitation*** is not restricted to physically disabled persons, but relates to a large range of health problems, including functional psychiatric disturbances and problems created by drug dependence and mental retardation; (iii) ***rehabilitation*** may be of different types and the term may, accordingly, be qualified by various adjectives, e.g. medical rehabilitation, social rehabilitation, vocational rehabilitation; (iv) the term ***rehabilitation*** is not synonymous with "care of the disabled" (the long-term, usually institutional, care required by persons suffering from a severe irreversible disability).

State of health (synonym: health status)

A general description of the degree to which an individual, a group, or a population functions normally, both physically and mentally, with respect to accepted criteria.

Other relevant terms

Various other terms are not yet subject to international agreement on usage, but their use is often difficult to avoid. Definitions are offered here in an attempt to promote clarity and precision in usage; most of the definitions have been derived from *The shorter Oxford English dictionary* (3rd edition, 1944).

Anomaly

A deviation from the common or natural order. [A synonym for ***abnormality***, but used particularly in the context of congenital impairments].

Behaviour

The manner of conducting oneself. [A class of ***disability*** – in psychological usage the term can indicate individual action, the functional response to a stimulus (i.e. an ***impairment***), but in a more sociological context it refers to conduct towards others and the importance of reciprocity between people for individual identity and social order; this latter sense is relevant to ***activity restriction***].

Congenital

Present at birth. [Does not of itself imply that the condition is hereditary or genetic, although a congenital ***impairment*** may be either or both; note that

a *handicap* cannot be congenital – only the *impairment*, and perhaps the *disability*, can be present at and from the moment of birth, the disadvantage arising later as the newly born individual interacts with his environment and those around him].

Deficiency

The state of lacking something necessary to completeness. [Connotes the absence of a part of the body, usually used with the implication that the absence is *congenital*].

Deformity

A misshapen part of the body. [Frequently used as a synonym for *malformation*, but better if restricted to mean distortion of a part of the body that has already been formed; note that the term does not necessarily imply a limitation of function].

Disfigurement

A condition in which the figure or appearance is marred. [A specific class of *impairment* associated with potential to interfere with or otherwise disturb social relationships with other people by virtue of engendering aversion].

Functional limitation

An *impairment* of the functioning of a system or mechanism of the body.

Illness

The state that is perceived by the individual when he is suffering from *disease* or other *disorder*. [Is an awareness of being unhealthy, and is more abstract than the simple presence of symptoms, which is a *manifestation;* includes the distress and discomfort associated with *disease* and the psychological response to the presence of *disease*, illness behaviour so-called, though in colloquial usage "being ill" is often turned into "having an illness" when what is usually meant is that *disease* is present].

Malformation

An anomaly in the formation of a part of the body. [A class of *impairment*, and one that usually carries the implication that it can be seen, even if only during surgery or on a radiograph].

Manifestation

A sign or symptom that reveals the presence of ***disease***. [Connotes a condition that would not normally be identifiable from the underlying cause in the ***International classification of diseases***, and which includes conditions like nephropathy or cataract occurring in a diabetic, or arthritis occurring in an individual with gout].

Pathology (in the context of the medical model of disease)

The morbid processes developing in response to an etiology. [Largely concerned with the nature of diseases and with the changes to which they give rise within the body].

(Activity) Restriction

A loss or reduction of the ability to carry out compound or integrated activities that are expected of the body and that arise as a result of ***impairment***. [The term identifies the key feature of ***disability***, and includes loss of the ability to walk and to wash oneself, to behave in a normal manner, and to carry out all the other composite activities customary to the intact human body].

Sickness

The state that develops in response to ***illness***. [Represents the patterning of ***illness***, which includes the behaviour of the individual in response to the expectations others have of him when he is ill].

Ambiguous and imprecise terms

Use of all the terms included in this section is generally undesirable in informed discourse, but as they are encountered frequently an attempt has been made to clarify their meanings.

Abnormality

The quality of deviating from the type. [A less precise term than ***impairment***, and therefore probably best relegated to colloquial speech].

Crippled

Deprived, wholly or partly, of the use of limbs. [Usually implies severe ***disability***, but tends to have a pejorative connotation].

Defect

The lack or absence of something necessary for completeness. [A less precise term than *impairment*, and therefore probably best relegated to colloquial speech].

Incapacity

The inability to cope in some way. [Virtually synonymous with *disability*, and the latter term is to be preferred; however, the term is used in some contexts with a specific connotation – thus in some countries "sickness incapacity for work" refers to occupational *handicap* of relatively brief duration (e.g. for up to 6 months)].

Infirmity

Physical weakness or *disability* resulting from *disease* or *disorder*. [Nowadays usually confined to *disability* associated with old age, and the term tends to have a pejorative connotation].

Invalidity

The state of being unable to follow an accustomed occupation. [The word "invalid" has a more general meaning, implying that the individual is ill and infirm].

Mental handicap

Incomplete development of the mind. [Use of this term represents a euphemism for mental retardation (syn. mental deficiency); the descriptive adjective "mental" may be applied correctly to an *impairment*, but its use in regard to *disability* is loose and to *handicap* quite unsuitable – the disadvantages experienced by individuals with psychological impairments can vary appreciably, and disadvantage is not an inescapable consequence of impairments of this type].

Physical handicap

[Often used colloquially to indicate impairments other than those which affect the special sense organs or the mind, but the term is subject to difficulties analogous to those noted above for *mental handicap;* however, the term physical disablement can be acceptable in such a situation].

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Annex 2

RESOLUTION EUR/RC31/R13 ADOPTED BY THE THIRTY-FIRST SESSION OF THE REGIONAL COMMITTEE FOR EUROPE, BERLIN, 15-19 SEPTEMBER 1981

The Regional Committee,

Having considered resolution WHA34.30 – Collaboration with the United Nations system – International Year of Disabled Persons, 1981: WHO's cooperative activities within the United Nations system for disability prevention and rehabilitation;

Noting document EUR/RC31/Tech.Disc./1 – Medical and social problems of disabled persons;

1. THANKS the Regional Director for the work carried out in relation to the International Year of Disabled Persons, 1981;

2. REQUESTS the Consultative Group on Programme Development to look into the possibilities for developing cooperation with other agencies to ensure adequate follow-up of activities during the biennium 1982-1983;

3. URGES Member States to review the existing facilities for rehabilitation with a view to improving the services available for disabled persons, and to encourage studies and research designed to facilitate participation of disabled persons in daily life;

4. ENDORSES the proposal for inclusion of a programme on disability prevention and rehabilitation in the Seventh General Programme of Work, taking into consideration the discussion on the subject during the present session;

5. RECOMMENDS that WHO continue to collaborate with Member States and other organizations in reviewing the existing facilities for rehabilitation, and the achievements of the International Year of Disabled Persons in Member States;

6. REQUESTS the Regional Director to keep the Regional Committee informed of developments in this field.

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